

Page 1, line 8, delete current heading and insert therefor:

2. Description of the Related Art

Page 2, line 26, delete current heading and insert therefor:

SUMMARY OF THE INVENTION

Page 9, line 21, delete current heading and insert therefor:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 10, line 13, delete current heading and insert therefor:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace claims 1, 5-17, 23 and 25-30 as follows:

1. (Amended) A solar cell, comprising:
a pair of electrodes; and
a titanium dioxide semiconductor which is disposed between the electrodes,
the titanium dioxide semiconductor defining a surface and an interior, the surface and the
interior of the titanium dioxide semiconductor being formed with pores, and the titanium
dioxide semiconductor being arranged so as to form a rectification barrier with respect to at
least one of the pair of electrodes.

5. (Amended) The solar cell as set forth in claim 1, wherein the electrode, with
which said titanium dioxide semiconductor forms the rectification barrier, is formed in such a
way as to penetrate into the surface of the titanium dioxide semiconductor and the interior
thereof.

6. (Amended) The solar cell as set forth in claim 1, wherein said titanium
dioxide semiconductor has a porosity of 5 to 90%.

7. (Amended) The solar cell as set forth in claim 1, wherein said titanium
dioxide semiconductor has a porosity of 15 to 50%.

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8. (Amended) The solar cell as set forth in claim 1, wherein said titanium dioxide semiconductor has a porosity of 20 to 40%.

9. (Amended) The solar cell as set forth in claim 1, wherein said titanium dioxide semiconductor is porous and has the fractal structure.

10. (Amended) The solar cell as set forth in claim 1, wherein the at least one of the pair of electrodes, with which said titanium dioxide semiconductor form the rectification barrier, is formed from a transparent electrode made of ITO or a metallic electrode made of at least one metal selected from the group consisting of Al, Ni, Cr, Pt, Ag, Au, Cu, Mo, Ti, and Ta.

11. (Amended) The solar cell as set forth in claim 1, wherein the at least one of the pair of electrodes, with which said titanium dioxide semiconductor forms the rectification barrier, includes a solid iodide.

12. (Amended) The solar cell as set forth in claim 11, wherein the at least one of the pair of electrodes, with which said titanium dioxide semiconductor forms the rectification barrier, includes CuI (copper iodide).

13. (Amended) The solar cell as set forth in claim 11, wherein the at least one of the pair of electrodes, with which said titanium dioxide semiconductor forms the rectification barrier, includes AgI (silver iodide).

14. (Amended) The solar cell as set forth in claim 1, wherein the pair of electrodes are formed by vacuum evaporation.

15. (Amended) The solar cell as set forth in claim 1, wherein the pair of electrodes are formed by sputtering.

16. (Amended) The solar cell as set forth in claim 1, wherein the pair of electrodes are formed by printing.

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17. (Amended) The solar cell as set forth in claim 1, wherein said titanium dioxide semiconductor is subjected to visual rays absorbable processing to enable absorption of visible rays.

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23. (Amended) The solar cell as set forth in claim 17, wherein said titanium dioxide semiconductor includes impurities that include at least one of Cr and V.

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25. (Amended) A solar cell unit, comprising:
a solar cell which includes a pair of electrodes, and a titanium dioxide semiconductor disposed between the pair of electrodes, the titanium dioxide semiconductor being formed with pores; and
first and second substrates, the solar cell being disposed between the first and second substrates.

26. (Amended) The solar cell unit as set forth in claim 25, wherein the first and second substrates are arranged so that solar rays enter from one side of one of the first and second substrates, the other substrate being arranged at a side of the one substrate that is opposite to the one side and being coated with a reflection film or having a reflection film thereon.

27. (Amended) The solar cell unit as set forth in claim 25, wherein the first substrate and the second substrate define a space therebetween, the space being filled with an inert gas including argon gas.

28. (Amended) The solar cell unit as set forth in claim 25, wherein at least one of the first and second substrates being arranged at a side from which solar rays enter, the at least one of the first and second substrates being formed into a transparent substrate or a translucent substrate formed of at least one of glass, plastic and synthetic resin.

29. (Amended) The solar cell unit as set forth in claim 25, wherein at least one of the first and second substrates is arranged at a side from which solar rays enter, the at least